

REMARKS

This paper responds to the Office Action mailed on November 1, 2005.

Claims 1, 2, 4, 7, 13, 17, 18, 22, 23, 30, 32, and 34 are amended, claims 5, 10, 16, 19, 29, and 33 are cancelled, and no new claims are added; as a result, claims 1-4, 6-9, 11-15, 17-18, 20-28, 30-32, and 34 are now pending in this application.

§112 Rejection of the Claims

Claims 2, 4, 5, 10, 16, 18-22, 23-29 and 30-34 were rejected under 35 U.S.C. § 112, second paragraph, for indefiniteness.

These claims have been amended to address the concerns raised in these rejections.

Claim Objections

Claims 5, 10, 16, and 29 were objected to for an appropriate characterization.

Claims 6, 12 and 15 were objected to for clarity of description.

Claim 13 was objected to for an appropriate characterization.

Claim 17 was objected to for consistency of description.

Claim 18 was objected to for consistency of description.

Claim 30 was objected to for an appropriate characterization and consistency of description.

Corrections to claims 5, 6, 10, 12, 13, 15, 16, 17, 18, 29 and 30 have been amended to address these objections.

§102 Rejection of the Claims

Claims 1, 2, 5, 13, 16, 23-26, 28, 29-33 were rejected under 35 U.S.C. § 102(b) for anticipation by Bruns (U.S. 5,982,249), Maschotta (German 131 327) and Anderson (U.S. 4,441,088).

Claims 6, 15, 27 and 34 were rejected under 35 U.S.C. § 102(b) for anticipation by either Maschotta or Anderson.

Claim 14 was rejected under 35 U.S.C. § 102(b) for anticipation by Maschotta.

Each of Burns, Maschotta, and Anderson each describe transmission lines separated from a ground plane by a dielectric material, and additional dielectric material formed over the transmission lines on a side of the lines opposite the ground plane. The dielectric material over the transmission lines is lesser in thickness than the thickness of the dielectric material applied over the substrates elsewhere. See, for example Figure 1 of Bruns in which coverlay layer 6 is thinner over the microstrip transmission lines 8, 10, and 12 than over other areas of the base dielectric layer 4 due to the thickness of the striplines. Similarly, the dielectric layer 3 of Maschotta is thinner over the strip conductors than over the rest of the dielectric layer 2.

In contrast, the pending independent claims 1, 7, 13, 18, 23, and 30 (as amended to reflect the limitations of cancelled claims 5, 10, 16, 19, 29, and 33) recite a dielectric coating applied over at least one microstrip line in a thickness greater than an average thickness of the conformal coating material across the printed circuit board or substrate. Figure 6 also shows selective placement of a dielectric material 605 on a substrate 601, such that the dielectric coating 605's thickness over microstrip lines 603 and 604 is greater than the average dielectric coating thickness across the area of substrate 601.

Because this distinguishes the pending claims from the cited art, the pending claims are believed to be in condition for allowance. Reexamination and allowance of these pending claims, and of their dependents, is therefore respectfully requested.

§103 Rejection of the Claims

Claims 3, 4 and 7-11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over any one of Bruns, Maschotta and Anderson in view of Forbes et al. (U.S. 6,373,740).

Claim 12 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Maschotta or Anderson in view of Forbes et al.

Claims 17 and 18-21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Bruns, Maschotta or Anderson in view of Adachi (U.S. 5,043,792).

Claim 22 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Maschotta or Anderson in view of Adachi.

Each of these claims contains a limitation, as amended, or depends from a claim containing a limitation of a dielectric material thickness that is greater over at least one

microstrip line than the average dielectric material thickness across a substrate or printed circuit board on which the microstrip line is formed. Because this element is not found in the cited art as described above in greater detail, these pending claims are also believed to be in condition for allowance. Reexamination and allowance of these claims is therefore respectfully requested.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 349-9581 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.


Respectfully submitted,

ROY GREEFF

By his Representatives,

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Date Feb 1 '06

By 
John M. Dahl
Reg. No. 44,639

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 1 day of February, 2006.

Kate Cannon
Name


Signature

IN THE DRAWINGS

Corrected drawings are supplied herewith.

Enclosed are Replacement Sheets designating Figures 1, 2, 4, and 5 as PRIOR ART.



TITLE: MICROSTRIP LINE DIELECTRIC OVERLAY
INVENTORS NAME: Roy Greeff
DOCKET NO.: 303.881US1

1/3

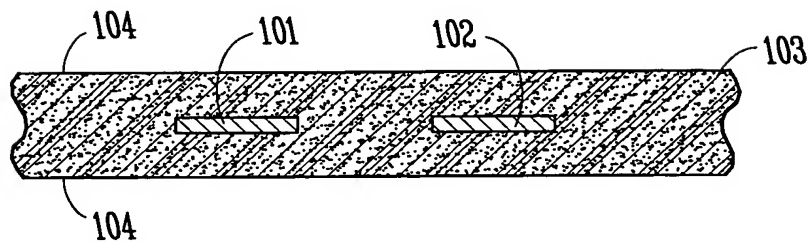


Fig. 1 (Prior Art)

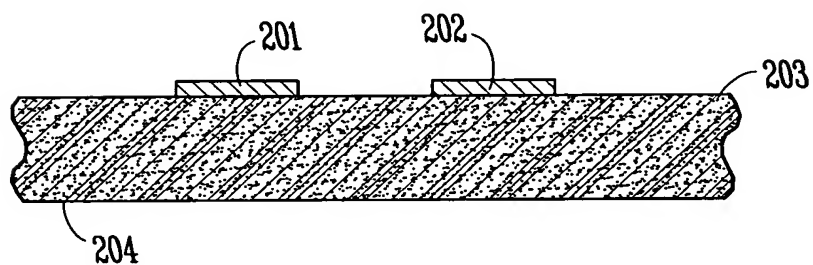


Fig. 2 (Prior Art)

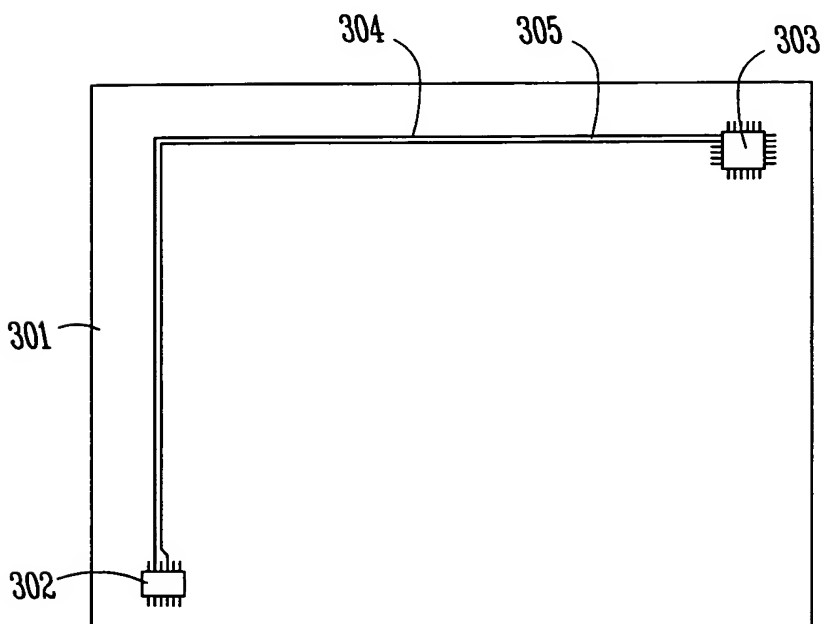


Fig. 3

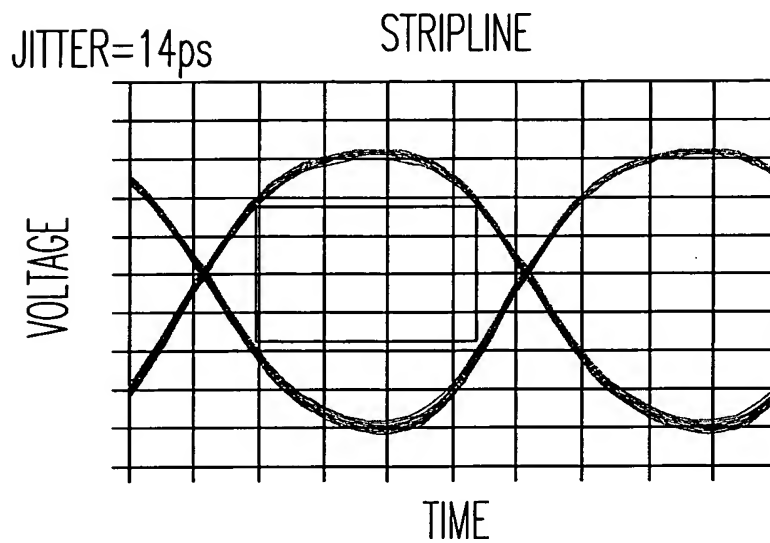


Fig. 4 (Prior Art)

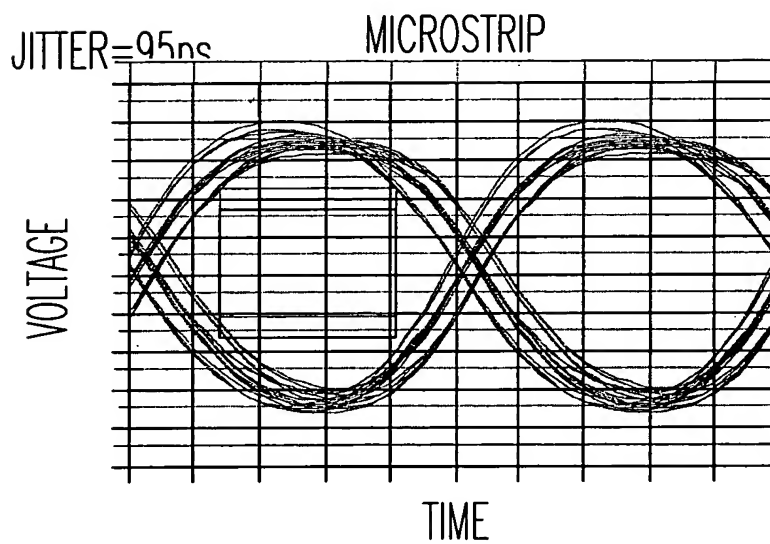


Fig. 5 (Prior Art)

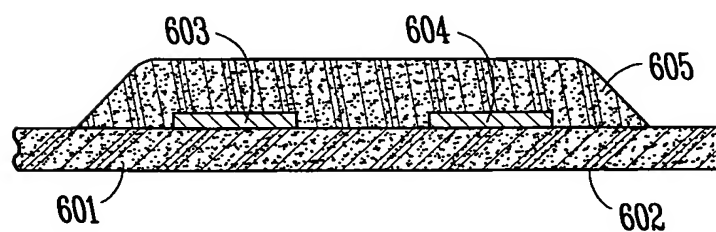


Fig. 6

EVEN AND ODD MODE VELOCITIES

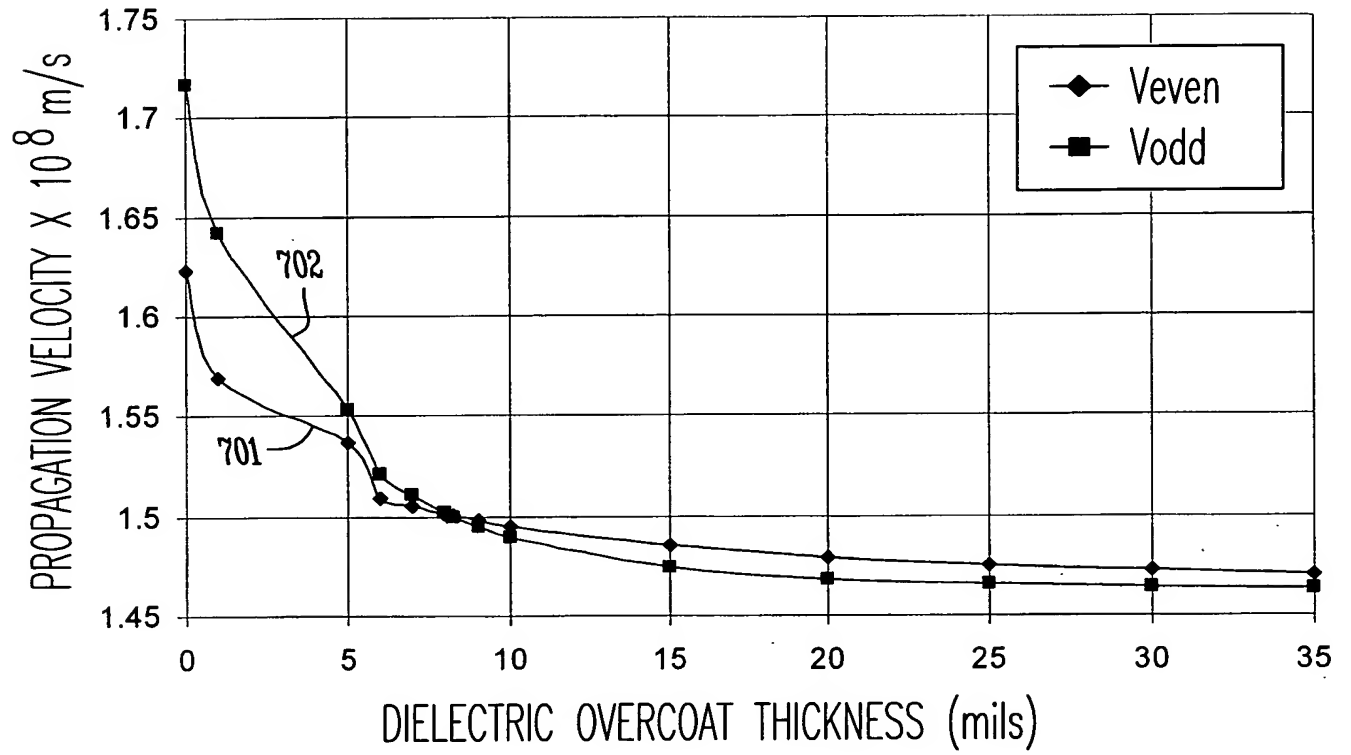


Fig. 7